



URBAN SANITARY AUTHORITY.

---

ANNUAL REPORT

OF

THE MEDICAL OFFICERS OF HEALTH

*For the Year 1909.*

---

Lincoln:

W. K. MORTON & SONS, LTD., 290 HIGH STREET,

1910



Digitized by the Internet Archive  
in 2017 with funding from  
Wellcome Library

<https://archive.org/details/b29732657>

# CITY OF LINCOLN.

---

## ANNUAL HEALTH REPORT FOR 1909,

BY

CHARLES HARRISON, M.D., D.P.H.,  
CONSULTANT MEDICAL OFFICER OF HEALTH,

AND

C. J. COLEMAN, M.D., D.P.H., MEDICAL OFFICER OF HEALTH.

---

## MEMBERS OF THE HEALTH COMMITTEE.

---

COUNCILLOR C. T. PARKER (MAYOR).

ALD. M. H. FOOTMAN (Chairman).

COUN. W. H. KILMISTER.

„ H. A. COTTINGHAM.

„ J. S. RUSTON.

COUN. T. C. HALKES.

„ C. H. NEWSUM.

„ E. TRESDALE.

„ T. ROBINSON.

„ J. MILLS.

„ T. OVERTON.

## **SANITARY STAFF.**

---

Consulting Medical Officer of Health and Sanitary Adviser:

CHARLES HARRISON, M.D., D.P.H.

Medical Officer of Health:

C. J. COLEMAN, M.D., D.P.H., M.A.

Bacteriologist and Assistant Medical Officer of Health:

C. H. COX, B.A., M.R.C.S., L.R.C.P., D.P.H.

Public Analyst:

E. M. CHAPLIN, Ph.D., F.C.S.

Chief Sanitary Inspector:

J. K. CRAWSHAW, C.R.S.I.

Assistant Sanitary Inspectors:

CHAS. STREET, C.R.S.I.

A. BENNETT, C.R.S.I.

Clerk:

W. BARR.

Matron of the City Hospital:

MISS A. BEARD.

HEALTH DEPARTMENT,

CORPORATION OFFICES,

LINCOLN,

JUNE, 1910.

TO THE COUNCIL OF THE CITY OF LINCOLN.

MR. MAYOR AND GENTLEMEN,

We have the honour to submit to you our report on the Health and Sanitary condition of Lincoln during 1909.

The BIRTH-RATE was 23.5 per 1,000, the DEATH-RATE 13.42 per 1,000, and the INFANTILE MORTALITY 84.5 per 1,000 births.

Diphtheria has been prevalent throughout the year.

The number of cases of Scarlet Fever and Typhoid are closely approximate to the number in 1908.

The House Planning Act and the Regulations of the L.G.B *re* Notification of Phthisis among Poor Law patients came into force during the year, and place further duties on the Health Department.

Your obedient servants,

CHARLES HARRISON,

C. J. COLEMAN.

The City of Lincoln, the capital of Lincolnshire, is situated 53.12 N. by 5 W. and is the centre of a great agricultural district standing on the banks of the river Witham.

The city is sharply divided into two portions; one built on the top and slopes of the hill which rises abruptly from the plain, and a larger and more populous portion built on the low-lying ground on the southern side of the river Witham.

The mean annual rainfall for the past 16 years is 23.33 inches, and the prevailing winds are south-westerly.

The area is 3,891 acres.

POPULATION.	Census of 1871	26,766.
	„ „ 1881	37,312.
	„ „ 1891	41,491.
	„ „ 1901	48,784.

Estimated population at the middle of 1909. 54,745.

DEATHS.—During the year 775 deaths were registered. These, divided into sexes, for each quarter are :—

	Males.	Females.	Total.
1st quarter	126	117	243
2nd „	89	70	159
3rd „	89	83	172
4th „	112	89	201
	<hr/> 416	<hr/> 359	<hr/> 775

This total compares with previous years as follows :—

DEATHS	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
..	775	786	790	872	784	769	800	816	962	877	807	767	775

Fifty-four persons died in the Workhouse, 68 in the County Hospital, 1 at the Lawn Asylum, 3 at H.M. Prison, 27 at the City Hospital.

Of the 775 deaths 164 were children under 5 years, of which 109 were infants under 12 months. There were 5 deaths between 90 and 100. Details given on page 7.



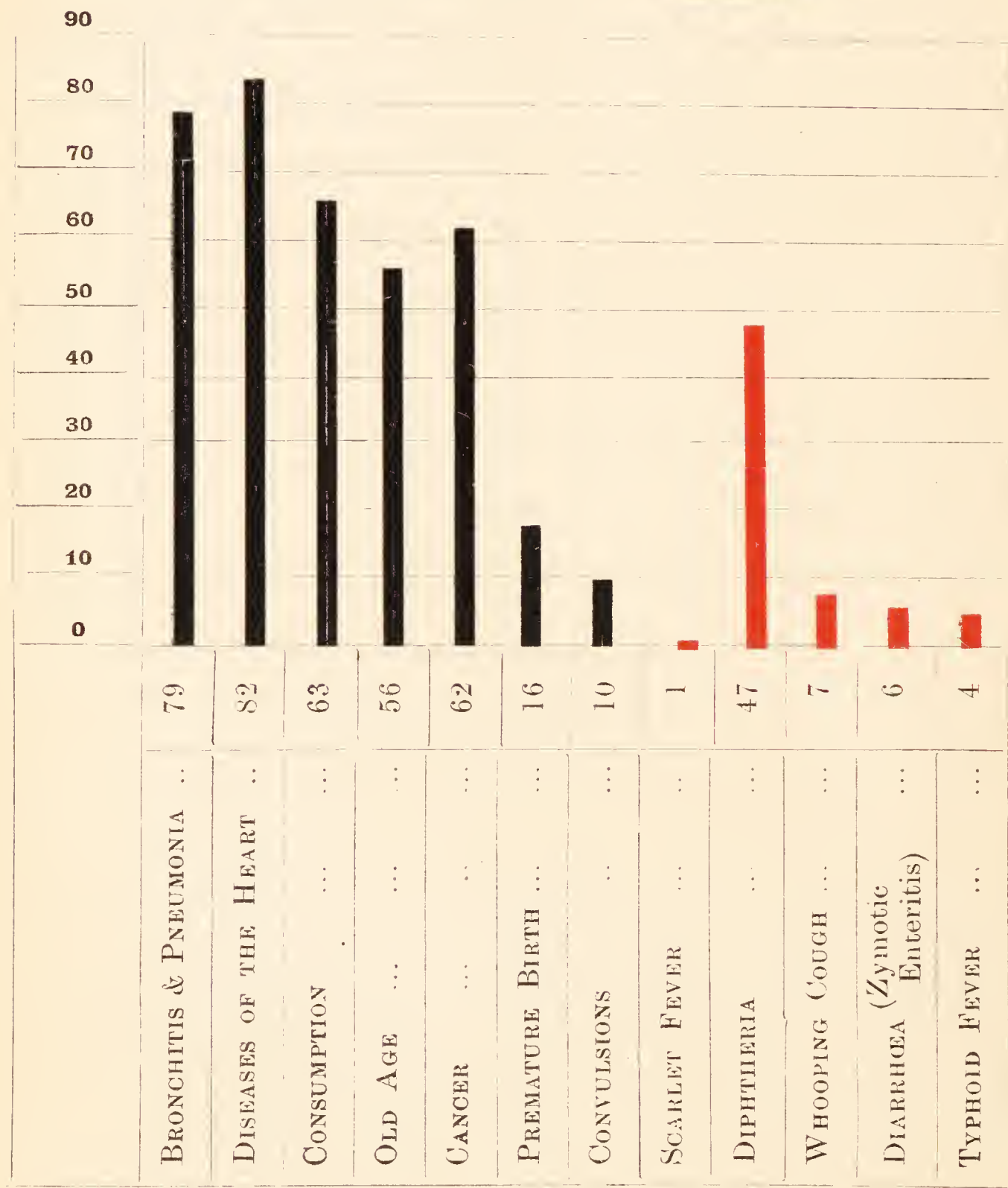


# CHART

SHOWING THE COMPARATIVE NUMBER OF THE PRINCIPAL  
CAUSES OF DEATH DURING 1909.

DEATHS FROM ZYMOTIC DISEASES

DEATHS FROM OTHER CAUSES.





## CAUSES OF, AND AGES AT, DEATHS DURING 1909.

CAUSES OF DEATHS.	Deaths in or belonging to whole district at subjoined ages.						Over 65.	Total deaths in Public Institutions in the district
	All ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.		
Small Pox ... ..	...	...	...	...	...	...	...	...
Measles ... ..	...	...	...	...	...	...	...	...
Scarlet Fever ... ..	1	...	...	1	...	...	...	...
Whooping Cough ... ..	7	5	1	1	...	...	...	...
Diphtheria and Membranous Croup ... ..	47	1	12	32	1	1	...	23
Croup ... ..	...	...	...	...	...	...	...	...
Fever { Typhus ... ..	...	...	...	...	...	...	...	...
{ Enteric ... ..	4	...	...	1	1	2	...	4
Epidemic Influenza ... ..	18	...	1	1	..	9	7	2
Cholera ... ..	...	...	...	...	...	...	...	...
Plague ... ..	...	...	...	...	...	...	...	...
Diarrhœa ... ..	6	3	2	...	...	1	...	...
Enteritis ... ..	5	3	...	...	...	1	1	...
Puerperal Fever ... ..	2	...	...	...	1	1	...	1
Erysipelas ... ..	2	...	...	...	...	1	1	...
Other septic diseases ... ..	1	1	...	...	...	...	...	...
Phthisis ... ..	63	...	...	4	13	42	4	6
Other tubercular diseases ... ..	19	6	6	3	1	3	...	5
Cancer Malignant disease ... ..	62	...	...	...	...	45	17	11
Bronchitis ... ..	46	10	2	...	...	13	21	4
Pneumonia ... ..	33	6	3	2	5	14	3	4
Pleurisy ... ..	1	...	...	...	...	1	...	...
Other diseases of Respiratory organs ... ..	25	...	11	...	...	9	5	3
Alcoholism, Cirrhosis of Liver ... ..	3	...	...	...	...	2	1	...
Venereal Diseases ... ..	1	...	...	...	...	1	...	...
Premature Birth ... ..	16	16	...	...	...	...	...	...
Diseases and accidents of Parturition ... ..	2	...	...	...	2	...	...	...
Heart Diseases ... ..	82	1	...	3	2	35	41	11
Accidents ... ..	18	...	6	2	...	7	3	12
Suicides ... ..	9	...	...	...	...	9	...	...
Execution ... ..	...	...	...	...	...	...	...	...
Old age ... ..	56	...	...	...	...	...	56	10
All other causes ... ..	246	57	11	11	7	85	75	58
All causes ... ..	775	109	55	61	33	282	235	154

In calculating the death-rate, the deaths in the public institutions of inmates who do not belong to Lincoln were deducted from the total number, and the deaths of Lincoln people known to have died in public institutions outside the city have been added to the number of Lincoln deaths.

Thus we have excluded 50 deaths, and have included 10 deaths of Lincoln people who have died in other districts. This leaves a balance of 40 deaths to be subtracted from the total of 775, giving 735, which is equivalent to a death-rate of 13.42 per 1,000.

To obtain a corrected death-rate it is necessary to multiply this figure by a factor which takes into account the differences of age and sex distribution in the City of Lincoln when compared with the whole of England and Wales.

The method of obtaining this factor has been explained in last year's report, and I will simply mention that as we are rapidly approaching the next census in 1911, it may then be found necessary to alter the factor for Lincoln, which at present is given as 1.0273.

The corrected death-rate is therefore 13.42 multiplied by 1.0273, or 13.78 per 1,000. The death-rate for England and Wales in 1909 was 14.5 per 1,000, which is lower than any other year on record.

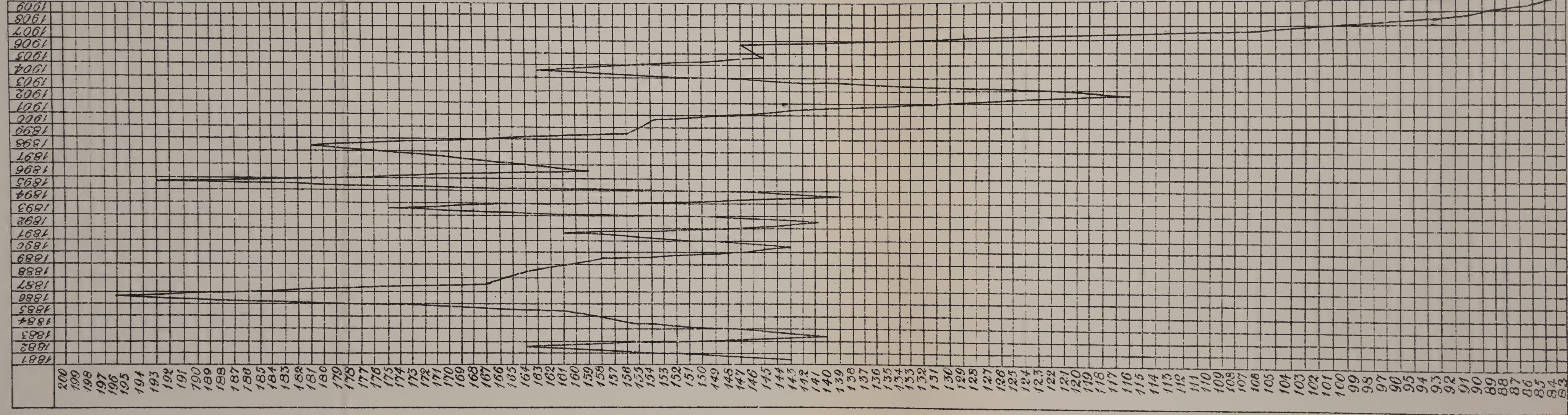
**DEATHS OF ILLEGITIMATE CHILDREN.**—The Registrar has supplied us with details of births and deaths of illegitimate children. Eighty-seven illegitimate children were born during that time, and 19 illegitimate children died. The sex, age and causes of death are as follows:—

Sex.	Age.	Cause of Death.
Male	5 yrs.	Tubercular caries of spine.
"	1 hour	Prematurity.
"	13 mths.	Tabes Mescuterica.
"	3 mths.	Debility.
"	4 mths.	Tabes Mescuterica
"	26 days	Inanition. Diarrhœa.
"	8 mths.	Convulsions
"	10 days	Atelectasis
"	10 mths.	Tuberculous Meningitis.
"	4 mths.	Marasmus Heart
Female	15 mths.	Broncho-Pneumonia
"	14 days	Diphtheria
"	21 mths.	Chronic Nephritis
"	few minutes	Extravasation of blood due to neglect at birth
"	1 day	Prematurity
"	14 mths.	Rachitis. Convulsions
"	1 mth.	Abscess of umbilical cord
"	6 mths.	Broncho-Pneumonia





Chart shewing the rates of Infantile mortality  
in Lincoln in the successive years between  
1881 & 1909.





INFANTILE MORTALITY.—During the year 109 deaths occurred in infants under 12 months of age, giving a mortality of 84.5 per 1,000 births.

This is still lower than the previous year 1908, and is a most satisfactory figure.

The reduction of the infantile mortality is not only confined to Lincoln, but is shared by the general returns of England and Wales.

#### INFANTILE MORTALITY IN VARIOUS DISTRICTS.—

	1904.	1905.	1906.	1907.	1908.	1909.
England and Wales ... ..	146	128	133	118	121	109
76 Great Towns ... ..	160	140	145	127	128	118
Rural Districts of England ...	126	113	136	122	124	111
Lincoln ... ..	163	145	147	111	93.5	84.5

It must be remembered that last summer was on the whole wet and cold, and in consequence infantile diarrhoea was much diminished, only six cases occurring. Very wet summers are fatal to fly life, and these insects have been proved repeatedly to be active agents in spreading disease and contaminating milk, a fact of great importance when infants are hand fed.

We would impress on all mothers the great desirability of covering milk receptacles with clean muslin or other suitable material during the hot months of the year, especially to prevent contamination by flies.

“ Flies breed all the year round in warm rooms, but only in the summer months out of doors, and then only under suitable conditions. Very dry or very wet weather is fatal to them. They may be generally found in bakehouses, or in sculleries, a temperature varying from 65 degrees fahrenheit to 75 degrees being the most suitable to them. Moist bread is perhaps their best food. Eggs are deposited in small bundles of about 50, and at the temperature of 70 degrees F. are hatched in 24 hours. In cold weather the eggs retain their vitality indefinitely. The larvæ or maggots grow rapidly when food is available; they shed their first skin in 36 hours, their second about four days after this, and their third in another five and a half days. The whole larval period occupies eleven days. The pupal or chrysalis stage usually lasts about ten days; at 77 degrees F. it may be only three days, but at a low temperature the ‘ perfect insect ’ may not emerge for several months.” (Mr. J. P. Jepson’s Report to the Local Government Board.)

The Health Visitor, Miss Charlesworth, and her successor, Miss Houlton, have investigated a large number of the deaths under one year, and the information as to feeding is tabulated below. It will be noticed that only 20 out of the 73 cases visited were breast fed.

No. visited ... ..	73
Natural Feeding ... ..	20
Mixed „ ... ..	2
Hand Fed ... ..	51
Cow’s Milk ... ..	27
Condensed Milk ... ..	3
Patent Foods ... ..	19
Unsuitable Bottles ... ..	23

INFANTILE MORTALITY DURING THE YEAR 1909.

Deaths from stated Causes in weeks and months under 1 year of age.

CAUSE OF DEATH.		Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-2 months.	2-3 months.	3-4 months.	4-5 months.	5-6 months.	6-7 months.	7-8 months.	8-9 months.	9-10 months.	10-11 months.	11-12 months.	Total under 1 year.
Common Infectious Diseases	Small Pox ...	...	1	1	...	2	...	...	...	...	...	...	...	...	...	...	...	2
	Chicken Pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Measles ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Scarlet Fever ...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	1
	Diphtheria, Croup ...	...	...	...	...	...	...	1	...	2	...	...	...	1	...	...	...	5
Diarrhoeal Diseases	Whooping Cough ...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	4
	Diarrhoea, all forms ...	...	1	...	1	2	...	...	...	...	...	...	...	...	...	...	...	3
	Enteritis, Muco-enteritis, Gastro- enteritis ...	...	...	...	...	...	...	...	1	...	...	1	...	1	...	...	...	16
Wasting Diseases	Gastritis, Gastro-intestinal Catarrh ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
	Premature Birth ...	9	1	3	1	14	1	...	...	1	...	...	...	...	...	...	...	1
	Congenital Defects ...	1	...	...	1	2	...	...	...	...	...	...	...	...	...	...	...	1
	Injury at Birth ...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Tuberculous Diseases.	Want of Breast Milk, Starvation ...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
	Atrophy, Debility, Marasmus ...	8	1	1	2	12	4	1	3	3	...	...	...	1	...	...	1	25
	Tuberculous Meningitis ...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
	Tuberculous Peritonitis, Tabes Mesenterica ...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	5
	Other Tuberculous Diseases ...	...	...	...	...	...	...	1	2	1	...	...	...	...	...	...	...	...
Other Causes	Erysipelas ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Syphilis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rickets ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Meningitis (not tuberculous) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Convulsions ...	1	1	2	...	4	2	1	...	...	3	1	1	2	...	1	1	10
	Bronchitis ...	...	...	...	...	...	...	...	1	...	...	...	...	2	...	...	1	10
	Laryngitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Pneumonia ...	...	...	...	...	...	...	...	1	1	1	1	...	...	1	1	...	6
	Suffocation, Overlying ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Other Causes ...	6	2	...	1	9	3	...	3	...	...	1	...	...	...	...	1	17
		26	7	8	6	47	11	4	12	8	5	4	1	8	1	4	4	109



**NOTIFICATION OF BIRTHS ACT.**—The working of this Act has proceeded smoothly during the year. We would point out that although it provides for the notification of a birth to the Health Department within 36 hours, the onus of such notification does not necessarily rest upon the doctor or midwife if they can show that they had reasonable grounds for supposing that the parents had done so. Stamped letter cards are issued to medical men and midwives, although in Lincoln very frequently these cards are handed to the parents to fill in, which, however, satisfies the conditions of the Act.

In last year's report we included a copy of the card on infant feeding which is left at the homes in suitable cases at the discretion of the health visitor, and when a medical man is not in charge of the case at the time. I have reason to believe that this has been attended with good results.

Miss Houlton has now been provided with a weighing machine for babies, and the mothers interested attend with their infants on a stated day at St. Swithin's House. In certain selected cases, "Glaxo," a dried milk preparation, has been supplied to mothers where the feeding of their infants has presented some difficulty.

We include a portion of Miss Charlesworth's report to the Lincoln Infant Health Society on her work from August, 1908, to November, 1909.

Miss Charlesworth left Lincoln in November, 1909, to take up her duties as Health Visitor in Shoreditch, being succeeded by Miss Houlton.

"To the Members of the Lincoln Infant Health Society.

"I have the pleasure to submit the following report on my work from the time of the writing of my last report on August 8th, 1908, to the time of my leaving Lincoln on November 11th, 1909.

Number of visits paid:—

In the whole year 1908	...	...	...	...	1,822
From August 8th to December 31st, 1908	...	...	...	...	898
* From January 10th to November 10th, 1909	...	...	...	...	2,043

From April 14th onwards the first visits were counted separately from the re-visits.

Number of first visits	...	...	...	...	...	649
Number of re-visits...	...	...	...	...	...	566

\*No. of visits paid by Miss Houlton from November 11th to end of year:—

Birth Enquiries	...	...	...	...	...	...	143
Re-visits	...	...	...	...	...	...	32
Infants Death Enquiries	...	...	...	...	...	...	16

---

191

The total number of visits by Miss Charlesworth and Miss Houlton for the year 1909 was 2,234.

‘ In addition to these there were the visits paid on my  
behalf by Voluntary Visitors ... .. 595

“ I also spent time in preparing and giving addresses at Mothers’ Meetings,  
etc.

“ As the representative of the Lincoln Infant Health Society, I attend the  
Council and Members’ Meetings of the National Union of Women Workers.

“ In my report of August, 1908, I explained the aims and methods of my  
work, and pointed out some of the difficulties with it. I do not propose in this  
report to repeat my remarks made in the former one, but to refer to it only  
when describing further developments in matters there dealt with.

“ In that report I mentioned the difficulty of obtaining notifications of  
births ; a few weeks later, in September, 1908, that difficulty was removed by the  
adoption of the Notification of Births Act, 1907. This Act states that every  
birth occurring within the area of the Local Authority adopting the Act must  
be notified to the Local Authority within 36 hours ; the Act also provides for  
compulsory compliance with this order. Applied to the City of Lincoln, it  
means that every birth occurring within the City of Lincoln must be notified  
to the Medical Officer of Health.

“ No Local Authority is able to adopt this Act without satisfying the Local  
Government Board that they have made adequate provision for profiting by it ;  
that is, that they have provided a visitor to go to the houses where births have  
occurred. . . .

“ An arrangement was made between the Lincoln Corporation and the  
Lincoln Infant Health Society which placed my services at the disposal of the  
Corporation for the purpose of carrying out the Act, which came into force in  
Lincoln on October 10th, 1908.

“ Although a notification was, or ought to have been, received from every  
home in which a birth occurred, every home was not visited. It seemed un-  
necessary to call on people whose income was sufficient to enable them both to  
buy books which would teach them the care of their children and to find time  
for reading them ; so the visits were confined to those with more limited income,  
and it was amongst this class that the largest number of births occurred. . . .

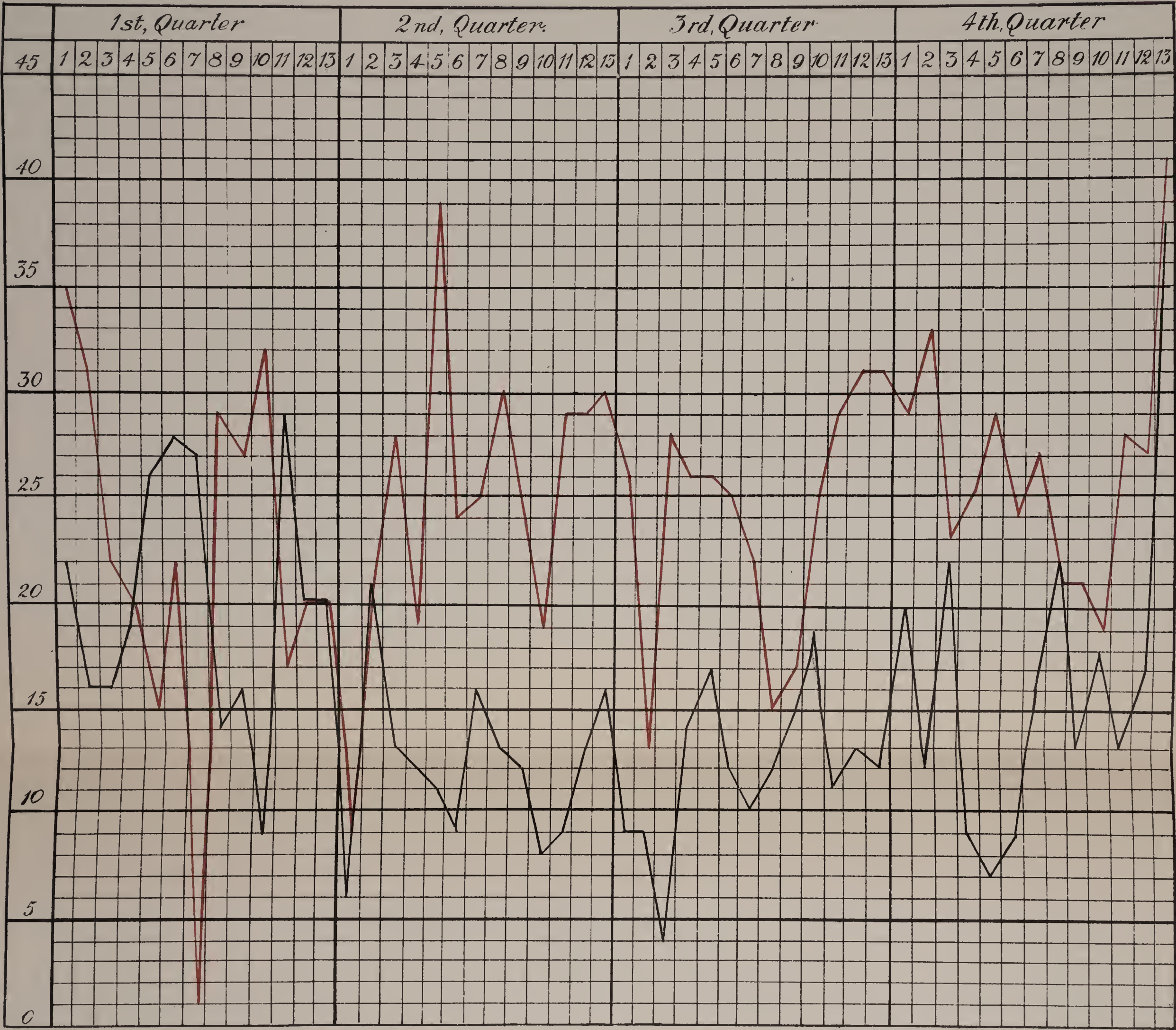
“ In November, 1908, by the kindness of the Deputy Medical Officer of  
Health, Dr. C. J. Coleman, I was able to take over the work of the Infant Death  
Enquiries from one of the Sanitary Inspectors. I had long wanted to do so, for  
it fitted in with my work, and, in some cases, I already knew the family history  
and the circumstances under which the baby lived and died, and so could make  
a report more quickly than a stranger could have done. A record of these  
Infant Death Enquiries is kept on a printed form at the Corporation Offices, a  
statistical account of them forms part of the Annual Report of the Medical  
Officer of Health.





Chart shewing the Number of Births and Deaths registered Weekly During 1909.

Births —————  
Deaths —————



“ The difficulty of obtaining notifications being overcome, a new one rose in the form of a struggle to keep up with the accumulating work. It was essential that many of those once visited should be re-visited, and sometimes frequently; this was simple when it was evident the first visit that re-visiting was necessary; but often there was not sufficient time to re-visit, in case they needed it, those who were doing well at the time.

“ When I did re-visit, I found, in some instances, that it would have been better had I done so before; and sometimes a mother would say, ‘ Had I known where to find you I would have sent to ask you to come.’ So I adopted the practice of leaving my official visiting card, and some would send for me if they wished to see me.

“ Notwithstanding this, I was very glad to avail myself of offers of help from Miss Joyce Chambers, Miss Ransome, Mrs. Wainwright and Miss L. C. Wickham, who were all so kind as to act as voluntary workers under my direction.

“ As the responsible visitor, I paid the first visit myself, and entered the first record; then I passed on suitable cases to a volunteer, who re-visited at intervals according to her discretion, reporting to me from time to time.

“ The number of visits paid by each worker varied according to her leisure; the total number paid by all is given on the first page.

“ I should like to take this opportunity of thanking them all for their kindness and help.” . . . .

BIRTHS.—During the year 1,290 births were registered. These, divided into sexes, for each quarter of the year are as follows:—

				Males.	Females.	Total.
1st quarter	...	...	...	154	150	304
2nd „	...	...	...	155	170	325
3rd „	...	...	...	183	154	337
4th „	...	...	...	167	157	324
				659	631	1290

The birth-rate for the year was 23.56 per 1,000. This is slightly better than in 1907, but considerably worse than in 1906, when the birth-rate was 26.8 per 1,000. The birth-rate for England and Wales in 1909 was 25.6 per 1,000, or  $1\frac{1}{2}$  per 1,000 higher than in Lincoln. The decline in the general birth-rate of the whole country has been referred to previously.



1909.	Annual rates per 1,000 living.			Infant Mortality per 1,000 births.
	Births.	Deaths.	Zymotic Death-rate.	
England and Wales ...	25·6	14·5	1·12	109·0
Rural England and Wales	25·6	14·5	·80	98·0
76 Great Towns ... ..	25·7	14·7	1·42	118·0
142 Small Towns ...	24·8	13·9	1·08	111·0
City of Lincoln ... ..	23·56	13·78	1·18	84·5

SCARLET FEVER.—Two hundred and nine cases of Scarlet Fever were notified during 1909, being an increase of 21 cases as compared with 1908. The number of notifications in each year since 1900 are given below:—

1900 ...	441.	1905 ...	189.
1901 ...	480.	1906 ...	137.
1902. ...	203.	1907 ...	553.
1903 ...	141.	1908 ...	188.
1904 ...	250.	1909 ...	209.

Only one death was attributed to the disease during the year, this being equivalent to a mortality figure of .14 per cent., which is extremely low, and emphasizes the mild character of the disease in Lincoln.

The age and sex distribution of the notified cases is as follows:—

Age.	Male.	Female.
1—5 ...	31	33
6—10 ...	36	52
11—15 ...	17	16
16—20 ...	14	2
21—25 ...	4	1
26—30 ...	0	1
over 30 ...	1	1
Total	103	106

Early in the year it was decided to exclude (temporarily) Scarlet Fever cases from the Hospital, extra accommodation being required for Diphtheria cases owing to the prevalence of the latter disease in the city. Since then the new Pavilion has been completed, and accommodation for Scarlet Fever is again available.

We may at this point mention that in the opinion of many fever authorities Scarlet Fever hospitals cannot be expected to eradicate the disease from a locality. The spread of Scarlet Fever by mild un-notified cases is so difficult to control, that the isolation as far as possible of notified cases in the wards of a fever hospital will not cut short an epidemic of the disease.



during 1909, and Deaths from same.

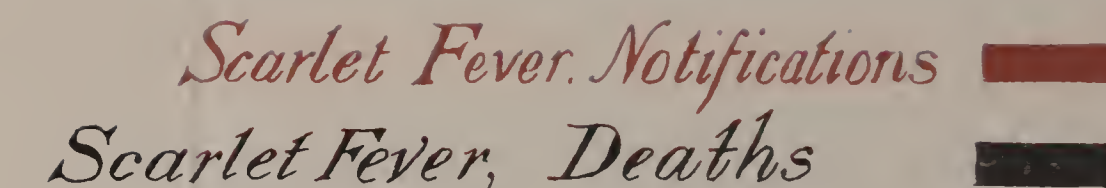
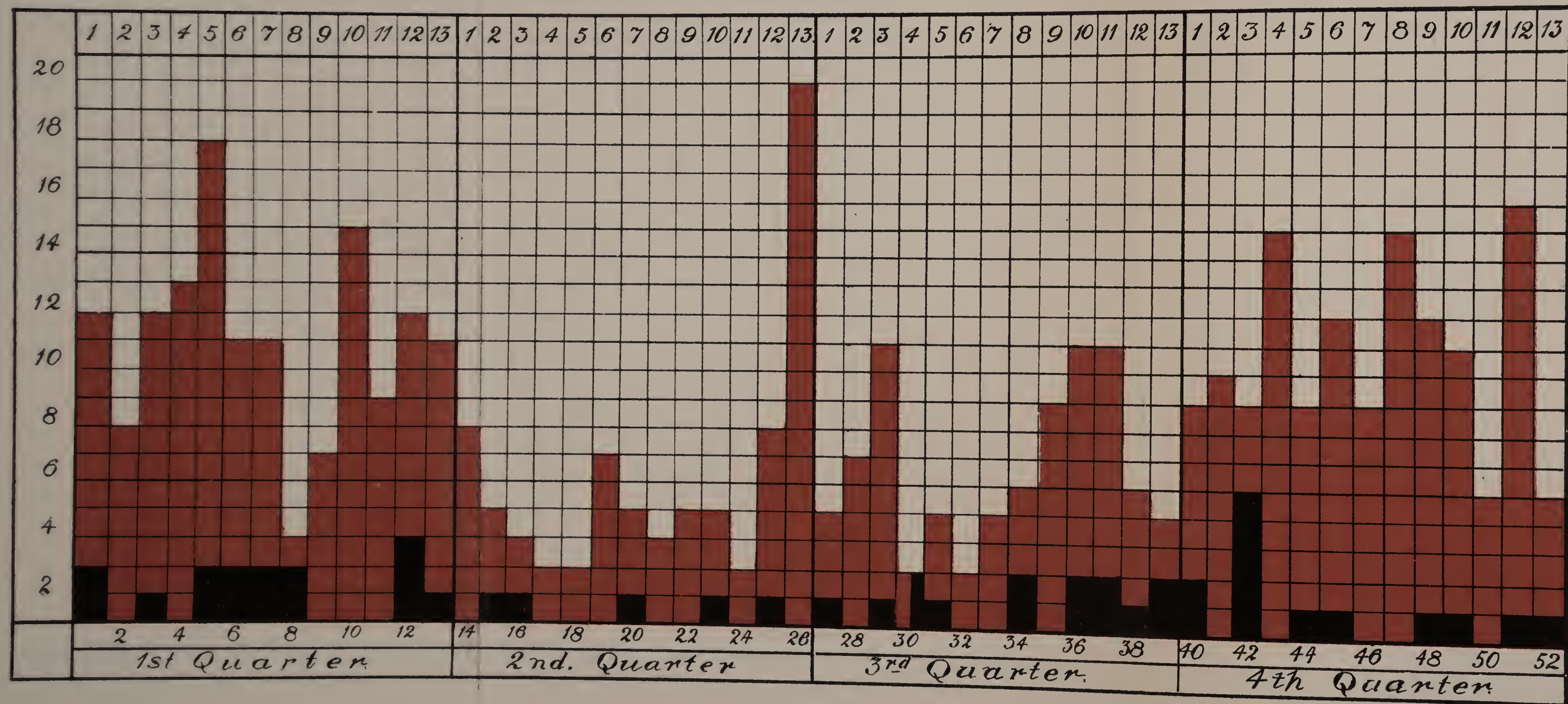








Chart shewing the Number of Cases of Diphtheria notified Weekly during 1909,  
and Deaths from same.



*Diphtheria Notifications* █  
*Diphtheria, Deaths.* █

It has, indeed, been much debated by some as to whether the large sums expended by various authorities on making provision for the isolation of Scarlet Fever has met with an adequate return. In our opinion the advantage of a Scarlet Fever hospital is the provision for cases where isolation at home is practically impossible, or conditions of employment of others in the same house, such as dairymen, grocers, etc., render removal to hospital desirable.

At Lincoln it is instructive to notice that although no cases of Scarlet Fever were removed after Jan. 2nd, in 1909 the total number of notifications for the year is nearly identical with the number in 1908.

DIPHTHERIA has been prevalent throughout the whole year, 397 cases having been notified. This is an increase of 118 on the highest number previously recorded, namely, 279 in 1906.

The total notifications compare with previous years as follows:—

1901	...	27	1904	...	..	90	1907	...	102
1902	...	23	1905	...	...	190	1908	...	152
1903	...	29	1906	..	...	279	1909	...	397

The age and sex distribution of the notified cases and of the deaths are as follows:—

Age.	Notified cases.		Deaths.	
	Male.	Females.	Male.	Females.
1—5	48	48	8	13
6—10	74	100	7	15
11—15	33	37	1	1
16—20	9	4	...	...
21—25	3	10	..	...
26—30	2	3	...	...
31—35	2	9	...	...
36—40	2	2	...	1
over 40	2	9	...	1
	175	222	16	31



Last year we drew attention to the great importance of swabbing all cases of suspected throats and "contacts." We are pleased to say that the public generally are gradually understanding the scientific control of Diphtheria, and realise the importance of the necessary procedure.

The disease was spread throughout the city, but appeared to be located more particularly in the Carholme Road district and in certain streets opening off the High Street in the lower-lying portion of the city.

On October 1st we presented a report on the prevalence of Diphtheria, in which we asked for further help in the swabbing of suspected throats and contacts in schools, and also a bacteriological laboratory.

The Health Committee, after careful consideration of the scheme, appointed Dr. C. H. Cox as bacteriologist and Assistant Medical Officer of Health for a period, and also fitted a laboratory at the Health Offices. These precautions have proved most useful in controlling contacts and in the prompt diagnosis of the disease.

The mortality can be calculated from the above table to be 11.84 per cent. on the notified cases. This is a fairly high mortality, and demonstrates the serious character of the disease. It will be noticed that the largest number of cases occur between the ages of 5 and 10 years, and also that the largest number of deaths from the disease over the age of ten is very small as compared with the mortality in cases of Diphtheria below that age.

In this connection we venture to express our personal opinion as to the value of the early injection of anti-toxin in cases of Diphtheria. This is an invariable practice at the City Hospital, and has been attended by good results. It should be remembered that the Hospital invariably receives the most severe types of the disease, and the mortality might therefore be expected to be very high. Nevertheless, the Diphtheria case-mortality in the Hospital during 1909 was only 11.16 per cent., i.e., lower than the general death-rate from the disease.

## REPORT ON PREVALENCE OF DIPHTHERIA.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

During the first nine months of the present year 278 cases of diphtheria have been notified, a number equivalent to the total for the whole of 1906, the previous worst year in the present decade.

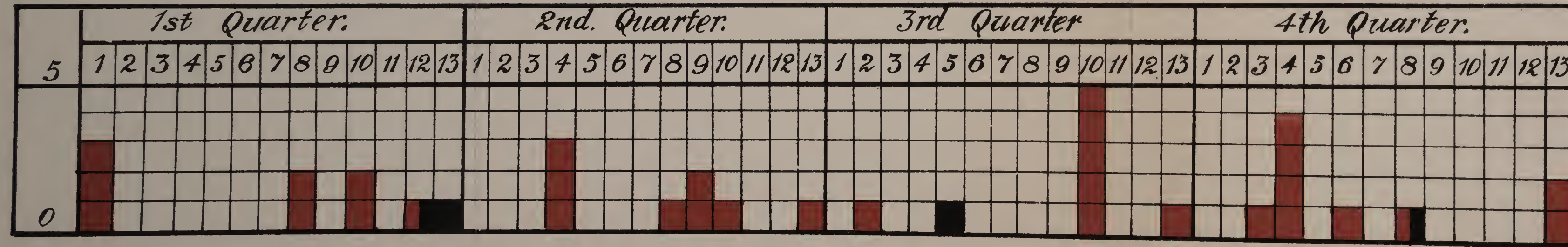
Thirty-seven deaths from the disease have occurred, which is a percentage of 13.2 on the cases notified.

I am sorry to say that some of the diphtheria has been of a particularly virulent type, which accounts for the somewhat high mortality.





*Chart shewing the number of cases of Enteric notified weekly.  
during 1909, and Deaths from same.*



*Enteric Notifications*   
*Enteric Deaths* 

During the past nine months over £60 have been paid to the Nottingham laboratories for bacteriological diagnosis representing a total number of nearly 500 swabs. As it is necessary for a child convalescent from Diphtheria to be swabbed before re-entry into school, and as all Hospital cases are swabbed before discharge, the number of swabs is far in excess of the number of cases notified.

On September 30th last a circular was issued from the Health Department to medical practitioners in the city suggesting that in all cases of Diphtheria a minimum isolation period be enforced, and, further, that a negative swab be obtained before sending in the card for disinfection.

I have repeatedly visited the classes of schools in which cases of the disease have arisen, and have taken swabs of contacts and suspicious throats. Unfortunately, the prevalence of the disease renders it impossible for one man to follow up every case and also carry out all the other duties pertaining to a Deputy Medical Officer of Health in Lincoln.

I therefore suggest that for the present, at least, further assistance is needed in order that all the children in an infected house, and all school contacts, may be swabbed. I also suggest that a bacteriological laboratory be fitted up at the Health Offices to facilitate diagnosis and shorten the present unavoidable delay caused by sending swabs to Nottingham.

During the present year nearly £100 in laboratory fees could thus have been saved, sufficient to pay a portion of the salary for the services of a medical man devoting his whole time as bacteriologist and to following up diphtheria contacts and cases of suspicious throats in the schools, and generally to assist in all the duties of the Medical Officer of Health.

If measures are adopted on the lines of the above, every precaution will have been taken to control the spread of Diphtheria, although it will be extremely difficult to eradicate the disease, which unfortunately appears to be endemic in some of the low-lying districts off the High Street and Carholme Road.

I am, Gentlemen,

Your obedient servant,

C. J. COLEMAN.

October 13th, 1909.

ENTERIC FEVER.—Thirty-two cases of Enteric Fever were notified in 1909, and four deaths resulted from the disease. This mortality is not excessive.

The accompanying table shows the number of notifications and deaths since 1900:—

	Notifcs.	Deaths.		Notifcs.	Deaths.
1900	19	6	1905	1054	131
1901	15	5	1906	22	3
1902	12	3	1907	17	3
1903	32	4	1908	22	5
1904	17	3	1909	32	4



Twenty-five of these cases, or 78 per cent., were removed to the City Hospital. Typhoid pails for reception of excreta and urine were sent to all cases treated at home and to any under medical observation.' The contents of the pails were destroyed in the small destructor at the City Hospital. Particulars of the individual cases are given below:—

No.	Date of Notif.	San. Conven.	Nuisances.	Remarks.	Nursed at Hospital.
1.	Jan. 2	W.C.	No defects.	Probably contracted from infected ash-bin in Bridge Street.	Yes.
2.	Jan. 2	W.C.	Common Yard.	Ash-bin improperly used. Probable source of infection.	Yes.
3.	Jan. 7	W.C.	No defects.	Poor class property. Contact with No. 1.	Yes.
4.	Feb. 23	W.C's.	No defects.	A localized outbreak at Workhouse. Origin of outbreak never satisfactorily cleared up.	No.
5.	Feb. 23	W.C.	No defects.	This case was never typical.	No.
6.	Mar. 8	W.C's.	No defects.	Workhouse outbreak. Died.	Yes.
7.	Mar. 8	W.C's.	No defects.	Workhouse outbreak. Died.	Yes.
8.	Mar. 22	W.C's.	No defects.	Workhouse outbreak.	No.
9.	Apl. 26	Pail closet.	Privy vaults in vicinity abolished and replaced by W.C.	Well water used by infected household gave an unsatisfactory analysis. Pail closet abolished and replaced by W.C.	Yes.
10.	Apl. 26	W.C.	No defects.	No suggestion as to origin.	No.
11.	Apl. 28	W.C.	Defect in drainage remedied.	No satisfactory cause of origin.	Yes.
12.	May 25	Vault.	Well water same as in No. 9, privy vault in such state as to cause nuisance.	Contact with case No. 9. Vault abolished and replaced by W.C.	Yes.
13.	June 3	Small pail same as in No. 9.	Same as No. 9.	Contact with case No. 9. Second case in house.	Yes.
14.	June 3	W.C.	Vent pipe unsatisfactory. Remedied.	Paddling in dyke. Probably dyke water had been drunk.	Yes.

No.	Date of Notif.	San. Conven.	Nuisances.	Remarks.	Nursed at Hospital.
15.	June 7	W.C.	Common Yard.	Next house to case 14. Probably same origin.	Yes.
16.	July 1	W.C.	No defects.	No suggestion as to origin.	Yes.
17.	July 14	W.C.	No defects.	Possibly infection from well water. Died.	Yes.
18.	Sept. 7 4 cases.	W.C.	Defective drain, asphalt in yard broken, defects remedied.	All four children had drunk dyke water on South Common. Warning notice posted up.	Yes.
22.	Sept. 8	Pail closet. Site of house too low to be connected to sewer.	No defects.	Probably contracted on visit out of Lincoln.	Yes.
23.	Sept. 24	W.C.	No defects.	Not typical.	No.
24.	Oct. 12	W.C.	No defects.	Employed at pumping station cleaning out syphon on Sewage Farm.	No.
25.	Oct. 18	W.C.	House dirty.	Possibly connected with outbreak at Workhouse.	Yes.
26.	Oct. 18	Same house as Case No. 25. { " " " " " {			

MEASLES.—The disease has been less prevalent than in 1908. No deaths resulted.

As mentioned in last year's report measles is not a notifiable disease, and there is therefore great difficulty in obtaining precise data.

By the courtesy of Mr. Minton we again have information as to the number of scholars who were absentees from this cause.

			Boys' or Mixed Depts.	Girls' or Mixed Depts.	Infants' Depts.	Total. All Depts.
January	...	...	...	...	...	...
February	...	...	...	3	15	18
March	...	...	...	3	16	19
April	...	...	3	3	5	11
May	...	...	...	...	2	2
June	...	...	1	...	3	4
July	...	...	...	1	...	1
August	...	...	...	...	...	...
September	...	..	...	...	...	...
October	...	...	...	...	...	...
November	...	...	1	...	...	..1
December	...	...	2	...	1	3
Total					...	59

As there seems to be some variance of opinion as to whether a child may or may not attend school if measles exists in the house we again reprint a portion of the instructions issued by the Education Committee on measles. These rules are similar to those in other large towns.

- 1.—Children suffering from measles must be excluded for at least one month.
- 2.—(a) Children in schools other than Infants' schools who have *not* had the disease must be excluded from school until the Monday following the expiration of 14 days from the occurrence of the first case.
- (b) All children in Infants' schools must be excluded from school until the Monday following the expiration of 14 days from the occurrence of the last case.
- (c) Children in schools other than Infants' schools who have had measles need not be excluded.

It is unfortunate that in the present year 1910 there is a serious epidemic of measles.



WHOOPING COUGH.—7 deaths were registered from this disease during the year, five being under one year of age. These figures are very similar to those of 1908.

PHTHISIS.—The percentage on total deaths for 1909 is slightly lower than in the preceeding year, but is nevertheless a very serious factor in the general death rate.

The notification of Phthisis among Poor Law patients has been in vogue since January 1st of the present year, and some useful work has been done by the Health Office under this heading. 62 cases have been notified by Poor Law Medical Officers, and 49 inspectional visits have been paid. The change of address of five patients was notified to the Health Department by the Master of the Workhouse and the Relieving Officers as required by the Local Government Board Regulations.

Bacteriological examinations of the sputum was made wherever practicable, and spit cups and pocket flasks provided.

A printed card of precautions was left at the houses of the cases notified, and general instructions given when practicable.

There is need in Lincoln for a Sanatorium for consumption available for the poorer classes.

The beds at the service of the Corporation at Kelling are not sufficient to deal with the number of cases that might be benefitted.

This will be an important problem to consider in the future.

CARD OF PRECAUTIONS.—The patient should have a bedroom to himself as far as circumstances will permit.

The bedroom should not have much furniture and carpets should not be used.

A bedroom with a fireplace should be chosen where possible, and the bedroom window should be kept open day and night.

The bedroom should be dusted daily with a damp duster and the duster then boiled.

The bedroom should be disinfected periodically. This will be done by the Health Department, on application, free of charge.

Do not spit into a handkerchief but into a spit-cup containing some weak disinfectant. The contents of this vessel should then be poured down the closet or burned. (Disinfectant and also a spit-cup will be supplied free of charge on application to the Health Department).

When coughing hold a handkerchief over the mouth.

Boil all handkerchiefs.

Persons suffering from consumption should refrain from kissing.

## TABULATED NOTIFIABLE DISEASES DURING 1909.

Notifiable Disease.	Cases notified in whole District.							No. of cases removed to Hospital.
	At Ages:—Years.							
	At all ages.	Under 1	1 to 5.	5 to 15.	15 to 25.	25 to 65.	Over 65.	
Small Pox ...	...	...	...	...	...	..	...	...
Cholera ...	...	..	...	...	...	...	...	...
Diphtheria includ- ing Membranous Croup ...	397	1	94	245	26	29	2	183
Erysipelas ...	45	1	1	2	7	26	8	...
Scarlet Fever ...	212	1	64	122	21	4	...	1
Typhus Fever ...	...	...	...	...	...	...	...	...
Enteric Fever ...	31	...	6	11	6	8	..	28
Relapsing Fever ...	..	..	...	..	...	...	...	...
Continued Fever...	..	...	...	...	...	...	...	...
Puerperal Fever ...	... <sup>2</sup>	..	...	...	1	1	..	.
Plague ...	...	...	...	...	...	...	..	...
Phthisis ...	51	...	...	1	6	40	4	...

CITY HOSPITAL.—240 cases were under treatment at the City Hospital during 1909, 28 of these remained in from 1908, and 212 cases were admitted. At the end of 1909 there were 33 cases in Hospital.

ENTERIC.—There were 1 male and 3 females in Hospital at the beginning of the year, and 28 fresh cases (11 males and 17 females) were admitted. Of these cases 10 males and 14 females were discharged convalescent, 2 males and 2 females died, and 4 females remained in at the end of 1909. The fatal cases had an average stay of 16·75 days. The male convalescent cases had an average stay of 48·8 days, and the females of 54·3 days.

DIPHTHERIA.—14 cases of this disease (4 males and 10 females) remained in at the end of 1908. During 1909 there were admitted 183 fresh cases (79 males and 104 females). 12 males and 11 females died, 13 males and 16 females remained in at the end of the year and the others were discharged convalescent during the year. The average stay in Hospital of the convalescent cases was 42·88 days for the males and 37·59 days for the females ; for the fatal cases it was 10·75 days for the males and 7·36 days for the females.

SCARLET FEVER.—8 males and 2 females remained in from 1908. 1 female was admitted during 1909, staying in Hospital 37 days.

Disease.	Sex.	Remain- ed in at end of 1908.	Admit- ted during 1909.	Recov- ered.	Died.	Average stay of recoveries.	Average stay of deaths.	Remained in at end of 1909.
Scarlet Fever {	M.	8	0	8	0	days. 35·9	...	...
	F.	2	1	3	0	40·4	...	...
Diphtheria {	M.	4	79	60	12	42·88	10·75	13
	F.	10	104	85	11	37·59	7·36	16
Enteric Fever {	M.	1	11	10	2	48·8	...	0
	F.	3	17	14	2	54·3	16·75	4
Total ...	...	28	212	180	27	...	...	33

The permanent nursing staff consists of a Matron, six staff nurses, and three probationers. In addition three Dawber Nurses are retained for fever work as explained in last year's report.

The new Diphtheria pavilion has been completed, and the Hospital is now able to satisfactorily isolate Diphtheria, Scarlet Fever, and Enteric. Until this building was available it was found necessary to exclude cases of Scarlet Fever as provision for Diphtheria patients was imperative.

One case only of Scarlet Fever was admitted in 1909, and the last case was discharged by March 14th.

It will be noticed, however, that a total of 212 patients were admitted during the year, being an increase of 47 on the year before.

Summary of District Fever Nursing carried on by the Dawber Nurses for the year 1909 :—

Visits paid	...	...	...	...	...	...	1,866
Visits extended during whole night	...	...	...	...	...	...	13
Number of cases attended	...	...	...	...	...	...	99



HOUSING AND TOWN PLANNING ACT OF 1909.—The Housing and Town Planning Act which was passed during 1909 imposes on the Local Authority the duty of “inspection of their district with a view to ascertain whether any dwelling house therein is in a state so dangerous or injurious to health as to be unfit for human habitation.” The effect of this section is that a house to house inspection of the district must be made from time to time. This work has been proceeding in Lincoln for the last four and a half years, and records are kept of over 2,000 houses which have been inspected during that period showing the address, the number, age and sex of the occupants, number of rooms, sanitary condition of the premises and the defects found.

662 houses were examined during 1909. The sanitary defects found and remedied are laid out in the summary of work.

Five houses which were unfit for habitation have been closed by arrangements with the owners : one in Townhill's Yard, and Nos. 10, 10a, 11, and 11a, St. Martin's Row.

Lincoln, fortunately, has no real slums, but some of the houses are old and packed away down narrow passages in most unlooked-for places.

Back to back houses are few, but there are still a fair number without through ventilation or adequate lighting, and which are therefore not suitable for the rearing of strong healthy children.

In Lincoln the majority of the houses of the poorer class are kept in a clean state, but in some instances the Health Department has had to deal with the problem of dirty and lazy occupants who soon depreciate decent house property by carelessness and neglect. It is not always sufficient to cleanse a house once as dirty habits lead to a recurrence of the conditions. Vermin, such as bugs, fleas, etc., in a house are needless cruelty to families of young children.

Section 17 to 21 of the Housing and Town Planning Act amend the procedure for closing orders and impose the following duties on a Local Authority and their authorities :—

- (a) To make inspection of their district from time to time.
- (b) To comply with such regulations and to keep such records as may be prescribed by the Board.
- (c) To make closing orders.
- (d) On a closing order becoming operative to serve notice of the order on every occupying tenant.

- (e) To determine closing orders when premises are rendered fit for human habitation.
- (f) To prescribe regulations for securing proper ventilation and lighting of rooms habitually used as sleeping places, the floors of which are more than three feet below the surface of the adjoining street (see section 17 (7) which does not come into operation until 1st July, 1910).
- (g) To consider the question of the demolition of a dwelling house in respect of which a closing order has remained operative for three months.
- (h) In certain events to order the demolition of a dwelling house.

Regulations on the Act have been issued to local authorities by the Local Government Board, and will guide us in Lincoln as to any additional duties to be undertaken.

MIDWIVES' ACT.—The names of seven midwives are entered on the Midwives Roll as practising in Lincoln.

Notice of intention to practise must be given in January of each year. It is also necessary for each midwife to notify the Health Office on the occasion of a still-born child or difficult labour when medical help was sought. This is an important rule under the Act and should be carefully observed by all midwives.

No woman can practise midwifery after April 1st, 1910, unless her name appears on the Midwives' Roll.

Supervision of Midwives and their outfits is conducted by your Medical Officers

Year.	Estimated Population.	Births.			Deaths.			Deaths in Public Institutions.	Birth Rate per 1000 of Population.	Death Rate per 1000 of Population.	Death Rate exclusive of Deaths in Public Institutions.	Deaths from Zymotic Diseases.	Deaths from Diseases of Respiratory Organs except Phthisis.	Deaths from Phthisis.	Deaths under 5 years.	Percentage of Total Deaths.	Deaths under 1 year.	Percentage of Total Deaths.	Deaths of Infants per 1000 Births.	Zymotic Death Rate.
		Male.	Female.	Total.	Male.	Female.	Total.													
1899	44,931	657	630	1287	408	382	790	88	28.6	17.5	15.6	67	109	55	244	.31	201	.25	156	1.49
1900	45,348	600	654	1254	453	419	872	119	27.6	19.2	16.6	77	142	60	282	.32	194	.22	154	1.69
1901	48,784	649	619	1268	421	368	784	115	25.8	16.0	13.6	77	112	58	248	.31	181	.28	142	1.57
1902	49,694	626	622	1248	405	364	769	110	25	15.4	13.2	48	121	64	228	.29	145	.19	116	.96
1903	50,423	655	605	1261	413	387	800	124	25	15.8	13.4	61	88	65	269	.33	177	.22	140	1.20
1904	51,152	653	623	1276	425	391	816	130	25	16.0	13.4	73	107	49	274	.33	208	.25	163	1.48
1905	51,882	667	602	1269	524	438	962	208	24.5	18.5	14.5	206	96	49	259	.27	185	.19	145	4.20
1906	52,611	723	687	1410	449	428	877	169	26.8	16.7	13.5	102	107	51	292	.33	208	.23	147	1.93
1907	53,341	636	641	1277	436	371	807	151	24	15.0	12.3	71	117	68	207	.25	142	.17	111	1.33
1908	54,017	696	646	1342	411	356	767	162	24.8	14.2	13.5	48	90	68	168	.22	132	.17	93.5	.832
1909	54,765	659	631	1290	416	359	775	153	23.5	13.78	13.42	65	79	63	166	.21	109	.14	84.5	1.12



## RAINFALL.

1909.	Total depth in inches.	Greatest daily fall.		No. of rainy days.
		Depth.	Date.	
January ... ..	1·21	·23	16th	15
February ... ..	·52	·22	9th	10
March ... ..	3·03	1·14	6th	21
April ... ..	1·65	·82	19th	10
May ... ..	·86	·49	25th	10
June ... ..	2·85	1·07	24th	17
July ... ..	3·80	1·17	27th	17
August ... ..	4·23	1·52	18th	13
September ... ..	1·52	·30	27th	20
October ... ..	2·83	·53	15th	28
November ... ..	·23	·05	22nd	11
December ... ..	4·51	·83	21st	25
Total, 1909 ... ..	27·24			197
Total, 1908 .. ..	20·75			189

## RAINFALL, 1888 to 1909.

Year.	Inches.	Year.	Inches.	Year.	Inches.	Year.	Inches.
1889	26·88	1894	25·50	1899	22·57	1904	19·72
1890	20·22	1895	24·27	1900	27·01	1905	18·22
1891	27·50	1896	26·52	1901	23·01	1906	23·53
1892	27·65	1897	26·29	1902	21·43	1907	24·47
1893	18·14	1898	20·59	1903	29·53	1908	20·75
						1909	27·24

City and County Borough of Lincoln,

---

THE

# Sanitary Inspector's Report.

---

*To the Chairman and Members of the Health Committee.*

GENTLEMEN,

I have the pleasure to submit for your consideration my Report on the operations of the Sanitary Department for the year ended December 31st, 1909.

Your obedient Servant,

J. K. CRAWSHAW,

Chief Sanitary Inspector.

HEALTH DEPARTMENT,

LINCOLN,

*June, 1910*

## SANITARY DEPARTMENT

---

### SUMMARY OF INSPECTOR'S WORK FOR 1909.

Statutory Notices served	...	...	...	...	...	3
„ „ complied with	...	...	...	...	...	2
„ „ partly complied with	...	...	...	...	...	1
Preliminary Notices served	...	...	...	...	...	201
„ „ complied with	...	...	...	...	...	178
Drains tested	...	...	...	...	...	902
Drains found defective	...	...	...	...	...	575
Drains re-laid	...	...	...	...	...	177
Drains choked	..	...	...	...	...	423
Drains cleansed	...	...	...	...	...	423
Drain vent pipes tested and found choked	...	...	...	...	...	114
„ „ „ „ clear	...	...	...	...	...	40
„ „ provided	...	...	...	...	...	73
„ „ cleansed	...	...	..	...	...	104
Sink waste pipes trapped	...	...	...	..	...	84
Manholes provided with iron covers	...	...	...	...	...	10
New manholes provided	...	...	...	...	...	106
Defective eaves and downspouts repaired	...	...	...	..	...	88
Walls plastered	...	...	...	...	...	6
Yards paved and asphalted	...	...	...	...	...	125
Privy boxes abolished	...	...	...	...	...	9
Privy vaults abolished	...	...	...	...	...	29
New W.C.s provided	..	...	...	...	...	54
W.C. pans found disconnected	...	...	..	...	...	161
W.C. cisterns out of working order	...	...	...	...	...	87
W.C. cisterns made good	...	...	...	...	...	77
Ashpits abolished	...	...	...	...	...	27
New ash bins provided...	...	...	...	...	...	162
Fowls kept in dirty condition and abolished	...	...	...	...	...	43
Pigsties inspected	...	...	...	...	...	153
„ found dirty	...	...	...	...	...	52
„ abolished	...	...	...	...	...	18



Manure removed	...	...	...	...	...	...	31 loads.
Houses inspected	...	...	...	..	...	...	2278
Dirty houses cleansed	...	...	...	...	...	...	36
Urinals cleansed and made good	...	...	...	...	...	...	5
„ provided	...	..	...	...	...	..	1
„ abolished	...	...	...	...	...	...	1
Cesspools abolished	...	...	...	...	...	...	6
Visits to cowsheds and dairies	...	...	...	...	...	...	164
„ Ice cream shops	...	..	...	...	...	..	30
„ Canal boats	...	..	...	...	...	..	59
„ Workshops and factories	...	...	...	...	...	...	306
„ Outworkers	...	...	...	...	...	...	157
„ Bakehouses	...	...	..	...	...	...	123
„ Common lodging houses	...	...	...	...	...	...	259
„ Gipsy vans	...	...	...	...	...	...	10
„ Living vans at Fair	...	...	...	...	...	...	60
„ Public abattoirs and private slaughterhouses	...	...	...	...	...	...	760
„ Hotel yards	...	...	...	...	...	...	53
„ Markets	...	...	...	...	...	...	184
Stable floors made good	...	...	...	...	...	..	4
Overcrowding abolished	...	...	...	...	...	...	9
Cases of infectious disease investigated	...	...	...	...	...	...	684
„ „ „ re-visited	...	...	...	...	...	...	290
Cases removed to Hospital	...	..	...	...	...	...	196
Cases of Phthisis investigated	...	...	...	...	...	...	25
Rooms disinfected after infectious disease	...	...	...	...	...	...	1470
Premises disinfected after Phthisis deaths	...	..	...	...	...	...	27
Cabs disinfected	...	...	...	...	...	...	4
Beds and mattresses destroyed	...	...	...	...	...	...	14
Houses stoved to rid vermin	..	...	...	...	...	...	14
Offensive untrapped sand-stone sinks abolished	..	...	...	...	...	...	3
Glazed earthenware sinks fixed in lieu	...	...	...	...	...	...	3
Foul catchpits abolished	...	...	...	...	...	...	34
Samples taken under Sale of Food and Drugs Acts	...	...	...	...	...	...	100
„ „ informally and analysed in laboratory	...	...	...	...	...	...	14
Bacteriological examination of meat	...	...	...	...	...	...	10
Houses closed by arrangement with owners	...	...	...	...	...	...	5

FACTORY AND WORKSHOPS' ACTS.—The statistical tables given below show the details of inspections under the Act during the year.

## INSPECTIONS.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories ...	94	1	...
Workshops ...	212	...	...
Workplaces ...	173	...	...

## DEFECTS FOUND.

PARTICULARS.	NUMBER OF DEFECTS.			No. of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
Want of Cleanliness ...	13	13	...	...
Want of Ventilation ...	...	...	...	...
Overcrowding ...	3	3	...	...
Want of Drainage of Floors ...	...	...	...	...
Other Nuisances—				
Sanitary Accommodation :—				
Insufficient ...	3	3	...	...
Unsuitable or Defective ...	2	2	...	...
Not separate for sexes ...	...	...	...	...
Illegal occupation of underground Bakehouse ...	...	...	...	...
Breach of Special Sanitary requirements for Bakehouses ...	12	10*	...	...

\* Two Sanitary defects remained unremedied at the end of the year.

NATURE OF WORK.	OUTWORKERS LISTS.										SECTION 107.		Inspections of Outworkers Premises.	OUTWORK IN UNWHOLESOME PREMISES. SECTION 108.	
	List received from Employers.					Address of Outworkers.					Prosecutions.			Instances.	Notices served.
	Sending twice in the year.		Sending once in the year.			Forwarded to other Councils.		Notices served on Occupiers as to keeping or sending Lists.		Failing to keep or permit Inspection of Lists.	Failing to send Lists.				
	Lists.	Contractors.	Outworkers.		Lists.	Contractors.	Workmen.								
			Contractors.	Workmen.											
Making Wearing Apparel ...	32	0	370	...	...	...	0	6	15	0	0	83	0	0	
Pea Picking ...	...	...	...	3	0	197	...	...	1	...	...	74	2	2	

Matters notified to H.M. Inspector of Factories ... 0

Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshops Act :---

Notified by H.M. Inspector ... 3

Reports (of action taken) sent to H.M. Inspector ... 3

No. of Bakehouses on Register ... 60

No. of other Workshops ... 245

Total No. of Workshops on Register ... 305

Underground Bakehouses ... 0

Certificates granted during the year ... 0

In use at the end of year... 0



SALE OF FOODS AND DRUGS ACTS, 1909.—During the year 100 samples were taken under the Sale of Foods and Drugs Acts :

New Milk	...	...	...	...	...	...	...	49
Skimmed Milk	...	...	...	...	...	...	...	1
Brandy	...	...	...	...	...	...	...	1
Whiskey	...	...	...	...	...	...	...	3
Gin	...	...	...	...	...	...	...	1
Margarine	...	...	...	...	...	...	...	1
Butter	...	...	...	...	...	...	...	14
Olive Oil	...	...	...	...	...	...	...	2
Lard	...	...	...	...	...	...	...	3
Pepper	...	...	...	...	...	...	...	2
Precipitated Sulphur	...	...	...	...	...	...	...	3
Rum	...	...	...	...	...	...	...	1
Mustard	...	...	...	...	...	...	...	2
Camphorated Oil	...	...	...	...	...	...	...	2
Cream	...	...	...	...	...	...	...	2
Honey	...	...	...	...	...	...	...	1
Coffee	...	...	...	...	...	...	...	3
Marmalade	...	...	...	...	...	...	...	2
Ground Ginger	...	...	...	...	...	...	...	2
Demarary Sugar	...	...	...	...	...	...	...	1
Ground Rice	...	...	...	...	...	...	...	1
Sweet Nitre	...	...	...	...	...	...	...	2
Paregoric	...	...	...	...	...	...	...	1
Total								100

12 Samples were adulterated being 12 per cent. of the whole.

SAMPLE No. 33 was Sweet Nitre which was 10 per cent. defieient in Nitrous Ether.

SAMPLE NO 41 was New Milk which proved on analysis to contain 3·6 per cent. of added Water.

SAMPLE No. 50 was Butter with 5·6 per cent. excess of Water.

SAMPLE No. 53 was New Milk which was 3·3 per cent deficient in Milk Fat.

SAMPLE No. 5 was New Milk 10 per cent. deficient in Fat.

SAMPLE No. 7 was New Milk with 3·5 per cent. of added Water.

SAMPLE No. 21 was Cream containing Boron Compounds epual to 0·46 per cent. Boric Acid.

SAMPLE No. 22 was Cream containing Boron Compounds equal to 0·49 per cent. Boric Acid.

SAMPLE No. 28 was Precipitated Sulphur containing 50 per cent. of Gypsum.

SAMPLE No. 34 was New Milk with 5 per cent. of added Water.

SAMPLE No. 36 was New Milk with 3·6 per cent of added Water.

SAMPLE NO 50 was Sterilized Milk with 13·8 per cent. added Water

#### PROSECUTIONS.

January 23rd, 1909.	Refusing to Sell.	£	s.	d.
	Fined	2	0	0
	Costs	1	9	0—£3 9 0
March 19th, 1909.	Refusing to Sell.			
	Fined	3	0	0
	Costs	1	17	0—£4 17 9

Amount of Meat destroyed as unfit for human Food during 1909 :—

	st.	lbs.
7½ carcasses of Beef weighing ... ..	315	
Beef not in carcase ... ..	74	
21½ carcasses of Pork ... ..	310	
Pork not in carcase ... ..	117	5
14½ carcasses of Mutton ... ..	52	10
2 „ „ Veal ... ..	21	
273 Rabbits ... ..	39	
Offals ... ..	40	
Fish .. ..	53	6
Fruit .. ..	3	
	<hr/> 1025	<hr/> 7

Tuberculous Meat (included in the above list).

	st.	lbs.
4½ Cows ... ..	195	
1 Bullock ... ..	50	
1 Heifer ... ..	30	
14 Pigs ... ..	200	
Beef not in carcase ... ..	56	
Pork „ „ „ (47 Pigs) ... ..	100	3
	<hr/> 631	<hr/> 3

One Prosecution during 1909.

October 15th, exposing unsound meat in the new market :

	£	s.	d.
Fined ... ..	2	0	0
Costs ... ..	1	11	0
	<hr/> 3	<hr/> 11	<hr/> 0

### PRIVATE SLAUGHTERHOUSES.

The private slaughterhouses are occupied by :—

1. Herrick J. W., Craven Street (licensed)
2. Nissler J. A. and Son, High Street (licensed)
3. Sowerby Jane. 7, Sincil Street (registered)
4. Dade A. W., 171, High Street „
5. Maddison J. B., St. Paul's Lane „
6. Peel T. & Sons, Corporation Street „
7. Mrs. R. Hill & Taylor Bros., Alfred Street (registered)
8. Gunnell Chas. Peel Street „
9. Dalton S. S., Boundry Street „
10. Blythe, Occupation Road „
11. Varty, J., Grantham Street „
12. Pateman F. J., 43, Newport „
13. Charles J. R., Stamp End (closed 1909)
14. Inkley, St. Rumbold Street „ „
15. Jackson, Queen Street „ „

16. The Industrial Co-operative Society, Sincil Bank, including slaughterhouses occupied by :—

Mr. A. A. Mays  
 Mr. H. Phillips  
 Mr. H. Gaunt  
 Messrs. Booth Bros.  
 Mr. Alfred Howsam  
 Messrs. Foster & Sons  
 Mr. Geo. Whitworth  
 Mr. M. H. Howitt (for fat)  
 Mr. E. A. Schroeder, (gut scraper)

At the beginning of 1909 twenty-four private slaughterhouses were in use. Of these, three have been discontinued.

In my last report on slaughterhouses I stated that only seven of the 24 private slaughterhouses in use in the City could be said to be good. I will go further and say that at least eight are bad and should be discontinued. I cannot recommend that this should be done until provision is made at the Public Abattoir for accommodating the butchers displaced. The accommodation provided should be on the separate hall system and if suitable places were built at the expense of the Corporation, good tenants could be found. Six of the leading butchers will undertake to pay a rent to cover the interest and sinking fund on the money spent.

In the public slaughterhouse no place except the slaughter-hall itself is provided for the emptying of the paunches and for the dressing of the intestines. The result is that during the busy time the slaughter house is in a very dirty state caused by the manure and the filth from the entrails. In any building operations which may be undertaken I suggest that a place be provided where the intestines can be dressed and where paunches can be emptied in the open air; and also a stand for the blood and offal carts which are now at the front door of the slaughterhouse. This will make more room in the existing slaughter-hall and will keep the place cleaner.

DAIRIES, COWSHEDS AND MILKSHOPS.—There are 48 cowsheds on the register, being one less than in 1908. There are 59 milksellers other than cow-keepers on the register, 8 having been registered during 1909.

#### COMMON LODGING HOUSES.

The registered Common Lodging Housekeepers are :

Joseph Smith, 27, Waterside North, with accommodation for 16 lodgers.				
John Austin, 2, Thorngate,	„	„	38	„
Chas. Austin, 33, Waterside North,	„	„	54	„
John Dwaine, 31, Waterside South,	„	„	53	„
Edwin Holland, 14, Waterside North	„	„	7	„
			<hr/>	
			168	
			<hr/>	

Two hundred and fifty nine visits have been paid to the Common Lodging Houses, including midnight visits.



## ANNUAL REPORT ON CANAL BOATS, 1909.

Health Department,

Lincoln, January 8th, 1910.

To the Chairman and Members of the Health Committee,

Gentlemen,

The Canal Boat Inspectors in Lincoln are Mr. Coleman, Chief Constable, J. K. Crawshaw, Chief Sanitary Inspector, and C. Street, Assistant Inspector, but the actual inspections are carried out by the Sanitary Inspectors.

The remuneration as Canal Boat Inspector is in each case included in the salary for the other office.

Fifty boats were inspected and the following infringements of the regulations were found :—

Not carrying registration certificates ... ..	4
Not numbered or lettered ... ..	4
Not carrying drinking water ... ..	1
Dirty ... ..	2

The Owners of the boats not carrying registration certificates were written to and three have provided the necessary certificates.

One Boat was dirty and carried no papers. The Owner was written to and he had his boat cleansed and painted.

The other Boat which was found dirty was delayed until it was properly cleansed.

It has not been necessary to take any legal proceedings during the year.

There have been no cases of infectious disease notified on the Canal Boats.

Mr. Owen J. Llewellyn, the L.G.B. Inspector under the Canal Boats Acts visited Lincoln on August 19th, 1909, and signed the book as satisfactory.

Two Boats have been registered during the year and the registration of one boat was refused until better means of ventilation were provided.

The number of Canal Boats on the Register at the end of 1909 was 78.

I have the honour to be, Gentlemen,

Your obedient servant,

J. K. CRAWSHAW.